

Chokes for Data and Signal Lines

B82799

CAN Bus Choke, EIA 1812



Rated voltage 42 Vac/80 Vdc Rated current 100 mA Rated inductance 11 to 51 µH



Construction

- Current-compensated ring core double choke with ferrite core
- Bifilar winding (B82799-C...)
- Sector winding (B82799-S...)

Features

- High performance
- Case flame-retardant as per UL 94 V-0
- Suitable for reflow soldering and conductive adhesion
- Operation up to 150°C

Applications

■ B82799-C:

Suppression of asymmetrical interference coupled in on lines, whereas data signals up to some MHz can pass unaffectedly

■ B82799-S:

Suppression of asymmetrical and symmetrical interference coupled in on lines. The high-frequency portions of the symmetrical data signal are decreased so far that EMC problems can be significantly reduced

Marking

Manufacturer, inductance value (coded), date of manufacture, coded (year, day of week, calender week)

Delivery mode

Blister tape, reel packing For details on taping, packing and packing units see page 302



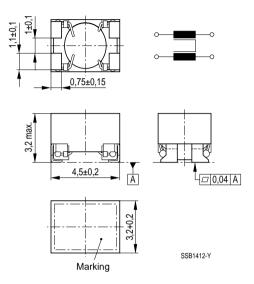
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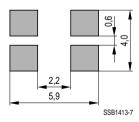
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Dimensional drawing



Layout recommendation





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SMD

General technical data

Rated voltage V_{R}	42 Vac (50/60 Hz)
	80 Vdc
Rated current I _R	Referred to 50 Hz and 60 °C ambient temperature
Rated inductance L _R	Measured with HP 4275A
	at 100 kHz and 0,1 mA
	(specified per winding)
Inductance tolerance	± 30 %
Inductance decrease $\Delta L/L_0$	< 10 % at dc magnetic bias with I _R
Stray inductance L _S	Measured with HP 4275A.
	Measuring frequency at $L_{\rm R} \le$ 11 $\mu{\rm H}$ = 1 MHz, 5 mA $L_{\rm R}$ > 11 $\mu{\rm H}$ = 100 kHz, 5 mA
DC resistance R _{typ}	Typical values, measured at 20 °C ambient temperature
Solderability	(215 3) °C, (3 0,3) s
•	wetting of soldering area ≥ 95 %
	in accordance with IEC 60068-2-58
Climatic category	40/125/56 (- 40 °C/+ 125 °C/56 days damp heat test)
	in accordance with EN 60068-1
Weight	Approx. 0,08 g

Characteristics and ordering codes

L _R ¹⁾ μΗ	L _{S, typ} nH	I _R mA	R_{typ} m Ω	V _T Vdc, 2 s	Ordering code
11	45	100	150	250	B82799-C113-N1
22	1300	100	200	250	B82799-S223-N1
33	1800	100	250	250	B82799-S333-N1
51	2700	100	300	250	B82799-S513-N1

¹⁾ Types up to 2200 μH upon request.



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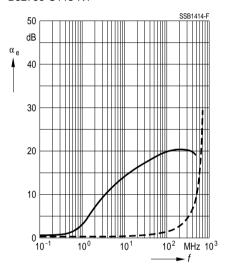
SMD

Insertion loss α_e (typical values at $Z = 50 \Omega$)

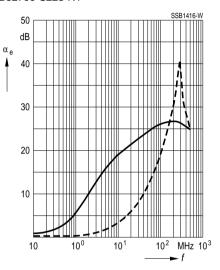
asymmetrical, all branches in parallel (common mode)

- - - symmetrical (differential mode)

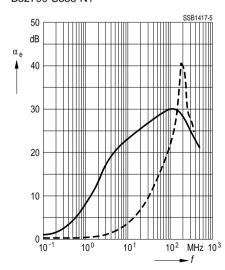
B82799-C113-N1



B82799-S223-N1



B82799-S333-N1



B82799-S513-N1

